BEFORE THE

ORIGINAL

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile-Satellite Service Above 1 GHz	)	ET Docket No. 98-142

COMMENTS OF MOBILE COMMUNICATIONS HOLDINGS, INC.

Mobile Communications Holdings, Inc. ("MCHI"), by counsel and pursuant to Sections 1.415 and 1.419 of the Commission's rules, hereby comments on the above-captioned Notice of Proposed Rule Making,[1] which proposes amendments to the Commission's Rules to allocate the 5091-5250 MHz and 15.43-15.63 GHz bands to the fixed-satellite service ("FSS") on a co-primary basis for Earth-to-space ("uplink") transmissions, and to allocate the 6700-7075 MHz and 15.43-15.63 GHz bands on a co-primary basis for space-to-Earth ("downlink") transmissions. The Commission further proposes to limit the use of these new allocations to feeder links to be used in conjunction with the service links of non-geostationary satellite orbit mobile-satellite service ("NGSO MSS") systems. MCHI is participating in this proceeding to express its strong support for these necessary modifications to the Commission's Allocation Tables and to urge that

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1 *See Notice of Proposed Rule Making*, FCC 98-177, slip op. (released August 4, 1998; 63 Fed. Reg. 44597 (August 20, 1998) (establishing September 21, 1998 comment deadline and October 5, 1998 reply comment deadline)

they be adopted expeditiously, with just one clarification concerning use of the 15.63-15.65 GHz band.

I. INTRODUCTION AND STATEMENT OF INTEREST

MCHI is a U.S. corporation formed in 1990 for the purpose of designing, developing and implementing a global satellite communications system. It has been licensed by the Commission to construct, launch and operate the Ellipso℠ NGSO MSS system,[2/] which will offer voice and data telecommunication services to users worldwide beginning in the year 2001. The patented Ellipso℠ design will employ elliptical and equatorial medium-earth orbit satellites operating service links in the 1610-1621.35 MHz (transmit) and 2483.5-2500 MHz (receive) "Big LEO" frequency bands. As the Commission notes in the *NPRM*, MCHI's license grants it authority to construct satellites capable of operating with feeder links in the 6875-7075 MHz (downlink) and 15.45-15.65 GHz (uplink) bands, but makes final feeder link assignments subject to future Commission action, *i.e.*, this rulemaking proceeding. Accordingly, MCHI has a keen interest in this proceeding, as it will permit these bands to be used for NGSO MSS feeder links, and permit finalization of the Ellipso℠ feeder link spectrum assignment.

2/ *See Mobile Communications Holdings, Inc.*, DA 97-1367, slip op. (IB/OET, released July 1, 1997).

II. DISCUSSION

MCHI endorses each of the proposals contained in the Commission's *NPRM*, as their adoption is necessary to permit domestically the operation of its feeder links at the 6875-7075 MHz (downlink) and 15.45-15.65 GHz (uplink) bands. MCHI also endorses the modifications of the power density and PFD limitations proposed for the Big LEO frequency bands. *See NPRM*, FCC 98-177, slip op. at 21-23 (¶¶ 33-37, renumbered from ¶¶ 32-36). MCHI's only major concern with the proposal advanced by the Commission is the need for clarification concerning the use of the uplink spectrum at 15.63-15.65 GHz that is part of its current authorization.

Specifically, although the Commission sets forth in its entirety the text of footnote S5.511D of the Radio Regulations, which was adopted at the 1997 World Radiocommunication Conference,[3/] it does not expressly propose in the text of the *NPRM* to adopt this footnote domestically, as it does with respect to footnotes S.511A and S.511C.[4/] Among other provisions, footnote S5.511D states that FSS systems that submitted complete information for advance publication to the ITU Radiocommunication Bureau by November 21, 1997 may operate uplinks at 15.63-15.65 GHz, so long as they do not cause harmful interference to stations in the aeronautical radionavigation service.

3/ *See NPRM*, FCC 98-177, slip op. at 20 (¶ 31, renumbered from ¶ 30).

4/ *See NPRM*, FCC 98-177, slip op. at 20 (¶ 32, renumbered from ¶ 31). However, footnote S5.511D does appear in Appendix A, listing the proposed rule changes.

The *NPRM* also includes a footnote that indicates that "Commission staff is unaware of any advanced published system that met [the November 21,1997] deadline." *NPRM*, FCC 98-177, slip op. at 20 n.80 (renumbered from n.79).

In fact, MCHI did meet the November 21, 1997 deadline for submission of advance publication information, and is thus covered by the terms of footnote S5.511D. Therefore, it is particularly concerned that this footnote be adopted domestically, and that it be permitted to utilize the 15.63-15.65 GHz band, as well as the 15.43-15.63 GHz band, internationally for its feeder uplinks. Certainly, there is no need for the Commission to modify its authorization to remove this portion of the frequency band, as is implied in the *NPRM*[5] (although presumably it would be necessary for the Commission to modify MCHI's authorization to encompass the 15.43-15.45 GHz portion of the band made available by the general shift to lower frequencies).

MCHI notes that, as discussed in the *NPRM*, the Commission had originally proposed the change in the FSS spectrum for space-to-Earth transmissions from 15.45-15.65 GHz to 15.43-15.63 GHz due to concerns that the power flux density ("PFD") limit of -146 dB "would effectively preclude NGSO MSS feeder <u>downlink</u> reception" above 15.63 GHz. *NPRM*, FCC 98-177, slip op. at 17 (¶ 29, renumbered from ¶ 28) (emphasis added). It was on this basis that the bands to be made available bi-directionally for feeder

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[5] *See NPRM*, FCC 98-177, slip op. at 20 n.81 (renumbered from n.80).

links were shifted. Because MCHI would operate only feeder uplinks in these frequencies, however, the concern relative to the PFD limit does not apply, and there is no reason for it to be excluded from the 15.63-15.65 GHz portion of the band within which it is now authorized to operate (as well as being eligible for access to 15.43-15.45 GHz).

Accordingly, MCHI urges the Commission to adopt footnote S5.511D domestically, at least insofar as it permits use of the 15.63-15.65 GHz band for feeder links in the Earth-to-space direction.[6/] MCHI falls within the conditions set forth in this provision, and should be permitted to operate its NGSO MSS system in accordance with its terms. The Commission should also modify MCHI's license for the Ellipso℠ system to permit it to operate feeder links at 15.43-15.65 GHz subject to these regulations.

Finally, MCHI notes that the Commission also requests comment on the assumption that each NGSO MSS system "will require only a few gateways, approximately six in number." *NPRM*, FCC 98-177, slip op. at 13 (¶ 22). This assumption is correct if, as MCHI believes is the case, it is meant to describe the number of gateways that would be constructed domestically. In fact, MCHI anticipates construction of only two or three gateways in the United States for its initial operations.

6/ The Commission may wish to limit domestic adoption of footnote S5.511D to Earth-to-space use of the 15.63-15.65 GHz band in view of the concerns raised about the viability of this band for downlink operations.

On a global basis, however, MCHI expects that it will require between 14 and 20 gateways for its first generation network. Moreover, technological advances may increase the number of gateways needed for subsequent satellite generations.

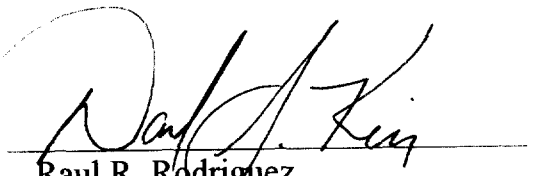
III. CONCLUSION

Based on its foregoing discussion of the issues raised in this proceeding, MCHI urges the Commission to move quickly to adopt the rule changes proposed in the *NPRM*. MCHI also asks that the Commission clarify, either through express adoption of ITU footnote S5.511D or by other action, that those NGSO MSS operators with conditional authorizations permitting construction of facilities capable of operating feeder links at 15.45-15.65 GHz, and which had ITU advance publication materials on file as of November 21, 1997 — such as MCHI — will retain the flexibility to use the 15.63-

15.65 GHz portion of this band, in addition to the 15.43-15.63 GHz band to be specified for NGSO MSS feeder uplinks.

Respectfully submitted,

MOBILE COMMUNICATIONS HOLDINGS, INC.

By: 

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